

NIH Common Fund Glycoscience Program

Participating Investigators Meeting

June 28, 2016

Lister Hill & Natcher Conference Centers

Agenda

Lister Hill Conference Center

8:00 a.m. Welcome & Introductions, Dr. Douglas Sheeley, NIGMS, NIH
The NIH Common Fund Glycoscience Program, Dr. Larry Tabak, Principal Deputy Director, NIH

Session I - Tools & Technologies - O-GlcNAcylation

Chair, Dr. Christopher West, Department Head of Biochemistry & Molecular Biology, University of Georgia

8:15 a.m. *Glyco-Seek: A technology for profiling and quantifying protein O-GlcNAcylation by qPCR*
Dr. Carolyn Bertozzi, Professor of Chemistry, Stanford University & Peter Robinson,
Co-founder & Chief Scientific Officer, Enable Biosciences

8:40 a.m. *Tuning OGT and OGA reveals a role for dynamic O-GlcNAcylation in autophagy*
Dr. Natasha Zachara, Assistant Professor of Biological Chemistry, Johns Hopkins
University School of Medicine

Poster Short Talk

9:00 a.m. *Photocrosslinking probes to discover glycan-dependent interactions*
Dr. Jennifer Kohler, Assistant Professor, Department of Biochemistry University of Texas
Southwestern Medical Center

Session II - Synthetic Methods & Technologies

Chair, Dr. Nikki Pohl, Professor and Chair, Department of Chemistry, University of Indiana

9:10 a.m. *Expedited Synthesis of glycosaminoglycan's containing defined sulfation domains*
Dr. Hsieh Wilson, Professor of Chemistry, California Institute of Technology

9:25 a.m. *Oxidative release of natural glycans for functional glycomics*
Dr. Xuezheng Song, Assistant Professor, Emory University School of Medicine

Session III - Tools & Technologies

9:40 – 10:40 a.m. Group Picture & Poster Session - 2016 Tools and Technologies Awardees

NIH Common Fund Glycoscience Program

Participating Investigators Meeting

Session IV Tools & Technologies

Chair, Dr. Richard Cummings, Professor, Department of Surgery, Beth Israel Deaconess Medical Center
Harvard Medical School

Affinity Reagents & Probes

- 10:45 a.m. *Automated microfluidic selection of aptamers against carbohydrates*
Dr. Milos Stojanovic, Associate Professor, Department of Biomedical Engineering,
Columbia University
- 11:00 a.m. *Mining the oral microbiome for novel glycan-binding molecules*
Dr. Stefan Hans-Klaus Ruhl, Professor of Oral Biology. Department of Oral Biology,
School of Dental Medicine, University at Buffalo, State University of New York
- 11:15 a.m. *Sialoglycan-recognizing probes for defining sialoglycomes in biological systems*
Dr. Ajit Varki, Professor, Department of Cellular & Molecular Medicine, University of
California San Diego

Structural Analysis & Informatics

- 11:30 a.m. *Single molecule sequencing of glycosaminoglycans using recognition tunneling
nanopores*
Dr. Xu Wang, Assistant Professor, School of Molecular Sciences, Arizona State University
- 11:45 a.m. *A hybrid IMS-MS platform for ultrasensitive and high resolution glycan analysis*
Dr. Keqi Tang, Staff Scientist, Battelle Pacific Northwest National Laboratory
- 12:00 p.m. *Outcomes from planning grants: Understanding needs for data integration and analysis
tools*
Dr. Raja Mazumder, Associate Professor Department of Biochemistry & Molecular
Medicine, George Washington University School of Medicine and Health Sciences & Dr.
William York, Professor of Biochemistry and Molecular Biology, University of Georgia

Session V - Commercializing Work Products

- 12:15 p.m. *SBIR/STTR program to complement the NIH CF-GSP*
Dr. Pamela Marino, Chief, Biochemistry & Bio-related Chemistry Branch, NIGMS, NIH
- 12:20 p.m. *How to find a commercial partner*
Dr. Paula Magnelli, Research Scientist, Glycobiology, New England Biolabs
- 12:35 – 1:35 p.m. Working lunch